



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/554,297

10/25/2005

Werner Kehlenbach

P16416-US1

3092

27045

7590

07/16/2008

ERICSSON INC.  
6300 LEGACY DRIVE  
M/S EVR 1-C-11  
PLANO, TX 75024

EXAMINER

AKINYEMI, AJIBOLA A

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

07/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/554,297	<b>Applicant(s)</b> KEHLENBACH ET AL.	
	<b>Examiner</b> AJIBOLA AKINYEMI	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,7 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,7 and 10-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/11/2007, 10/25/2005</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7, 10-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Wright (Patent No.: US 7058369B1).

#### With respect to claim 1:

Wright teaches a method for improving the output signal accuracy of a transmitter with a forward branch for converting an input signal into a signal for transmission, the forward branch comprising an adaptation unit (fig. 24, item 106) for applying a predistortion to the input signal and a power amplifier (fig. 24, item 118) and with a first feedback branch, the first feedback branch generating a feedback signal from the signal for transmission, said feedback signal being fed back to the adaptation unit (fig. 24, item 106) wherein, in said first feedback branch, the frequency of said signal for transmission is down-converted (fig. 24, item 124) and wherein the down-converted signal is analog-to digital (fig. 24, item 126) converted, and wherein the predistortion applied to the input signal is determined according to the feedback signal, the method comprising the steps of measuring the output power (fig. 24, item 506) of said signal for transmission in a

Art Unit: 2618

second feedback branch converting analog output power measurements of the second feedback branch to digital values (fig. 24, item 126) processing said analog-to digital converted signal values of said first feedback branch by an integrating method, comparing the processed analog-to digital converted signal values of the first feedback branch with the digital values of the measurement, deriving a correction factor from said comparison, and multiplying said analog-to digital converted values of the first feedback branch with said correction factor for adjusting the predistortion according to said measurement of the output power (col. 4, line 27-41).

With respect to claim 2 and 16:

Wright teaches a method wherein adjusting according to said measurement is performed on the feedback signal (col. 4, line 27-41).

With respect to claim 3 and 17:

Wrights teaches a method wherein said measurement of the output power is performed by integrating method (col. 43, line 61-col. 44, line 11).

With respect to claim 7:

Wright teaches a method wherein the same time constant is used for integrating the output power measurement of the second feedback branch and for integrating said analog-to-digital converted signal values of the first feedback branch (col. 6, line 1-49).

With respect to claim 10 and 15:

Wright teaches a transmitter/computer program with a forward branch for converting an input signal into a signal for transmission, the forward branch comprising an adaptation unit (fig. 21, item 106) for applying a predistortion to the input signal and a power

Art Unit: 2618

amplifier (fig. 24, item 118), and with a first feedback branch, the first feedback branch being adapted to generate a feedback signal from the signal for transmission by down-converting (fig. 24, item 124) the frequency of said signal for transmission and converting the down-converted signal analog-to digital (fig. 24, item 126) and being connected to the adaptation unit (fig. 24, item 106) wherein the adaptation unit is adapted to determine said predistortion according to the feedback signal, wherein the transmitter comprises; a second feedback branch with a measurement unit (fig. 24, item 506) for the output power of said signal for transmission, said second feedback branch being connected to the adaptation unit (fig. 24, item 106), means for converting analog output power measurements of the second feedback branch to digital values, means for processing said analog-to digital converted signal (fig. 24, item 126) values of said first feedback branch by an integrating method, means for comparing (fig. 24, item 138) the processed analog-to digital converted signal values of the first feedback branch with the digital values of the measurement, means for deriving a correction factor (fig. 9, item 908) from said comparison, and means for multiplying (col. 5, line 27-64) said analog-to digital converted values of the first feedback branch with said correction factor for adjusting the predistortion according to said measurement of the output power.

With respect to claim 11:

Wright teaches a transmitter wherein said first feedback branch comprised a frequency converter (fig. 24, item 124) and analog-to-digital converter (fig. 24, item 126).

With respect to claim 12:

Wright teaches a transmitter wherein said measurement is an integrating measurement unit (col. 43, line 61-col. 44, line 11).

With respect to claim 13:

Wright teaches a transmitter wherein said adaptation unit (fig. 24, item 106) is adapted to adjust the predistortion according to said measurement.

With respect to claim 14:

Wright teaches a transmitter wherein said adaptation unit is a predistortion unit (fig. 24, item 106).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIBOLA AKINYEMI whose telephone number is (571)270-1846. The examiner can normally be reached on monday- friday (8.30-5pm) Est. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, YUWEN PAN can be reached on (571) 272-7855. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Application/Control Number: 10/554,297

Page 6

Art Unit: 2618

Customer Service Representative or access to the automated information system, call  
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

/Yuwen Pan/  
Primary Examiner, Art Unit 2618